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July 1990

approach

The Naval Aviation Safety Review



EJECTION



As Advertised

While working on this issue, I solicited a story from a guy I knew had done a "Martin-Baker Penetration" while attached to an East Coast squadron. I tried to set the tone of the story for him by saying, "We're looking for the sights, sounds and smells of the ejection sequence, you know, a blow by blow of how it went."

He looked at me stoically and replied, "As advertised," and walked off.

"Gee," I called to him as he continued away from me (they're real busy in this particular squadron), "that's going to be a pretty short story."

I thought about the list of better people that I'd been snubbed by (Jack Kemp, Arnold Schwarzenegger and my detailer, to name three.) But, as the true meaning of the reply sank in, I realized there was much more to it than simply getting gaffed-off.

What is the goal of advertising? To make products so familiar that they immediately jump to mind. You want "fahrvergnugen," you know which car to buy. (Several contractors claimed they had engineered fahrvergnugen into the jets we currently fly; they just didn't know that's what it was called. It would be impossible to fly double cycles without it.)

I reasoned that the statement "as advertised" really meant "Because you went through survival training in Pensacola and refresher every four years after that, and because you cover ejections in every brief; it should be second nature."

This issue is full of stories by guys who weren't able to narrow their experiences into two words. I hope, after reading the articles, you'll think a little more about what you'd do if faced with the possibility of ejection. It might be a decision you have to make faster than you can say, "As advertised."

Wendell

approach



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Cover courtesy of Martin-Baker

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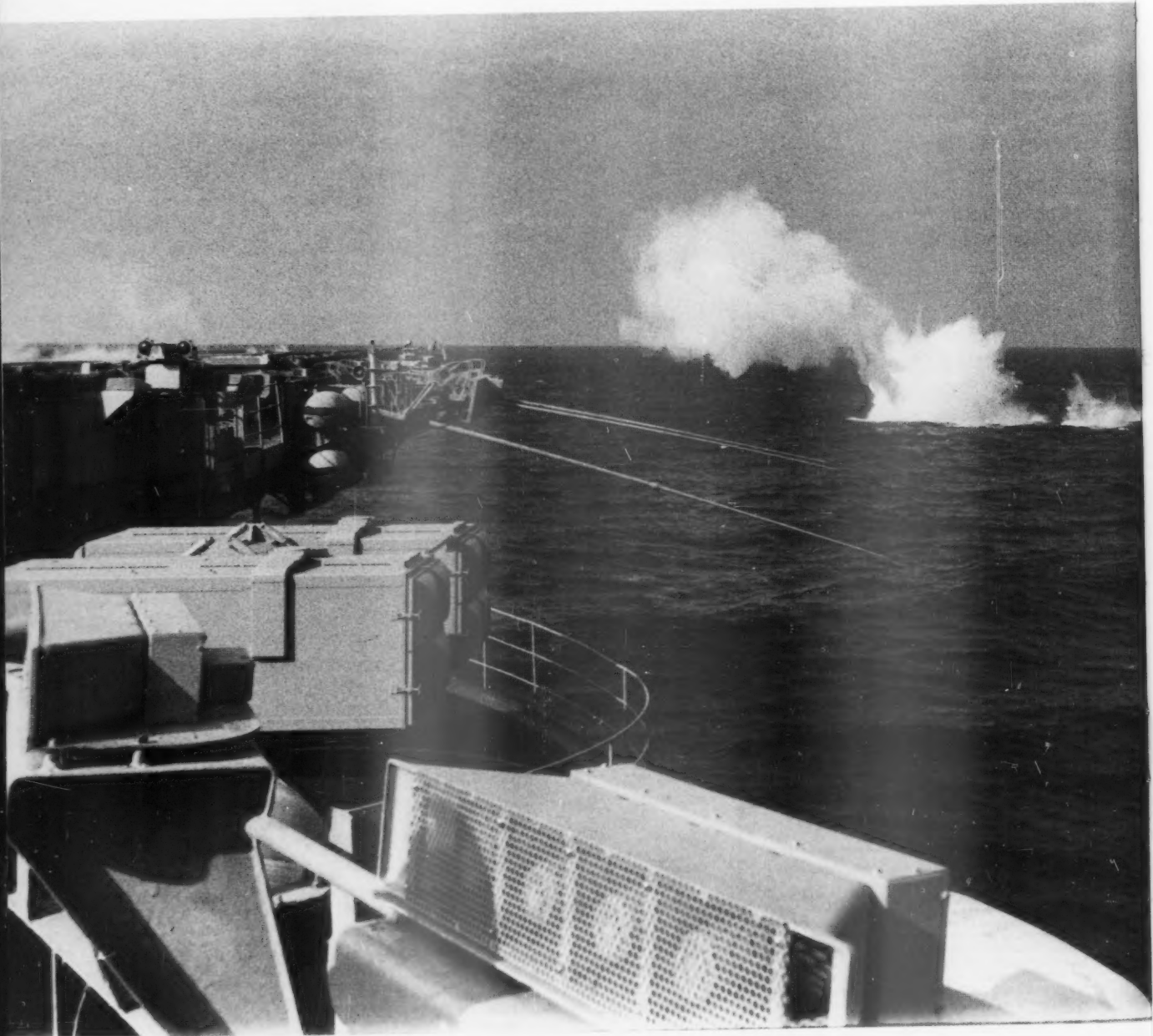
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Oh, My God!



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Eject!

By AW2 Tracy Mann

Eject!

3

I AWOKE early to have my picture taken for a PRP badge. I had been asleep only a few hours because I'd had duty the night before – nothing a splash of cold water on my face couldn't cure, though.

It was October 7, the first day of cyclic ops after two days of CQ. Twelve hours earlier, an F-14 from our air wing had bolted and hit a jet blast deflector. The pilot and RIO had safely ejected.

I made it to the ready room in time for my 1300 brief. My crew was already there and were just starting to take their seats. We were assigned aircraft 710, a turning spare recovery tanker, backing up 702. After CVIC's broadcast, the crews briefed individually. My pilot gave a thorough squadron SOP brief. The COTAC was tasked as primary ejector in case of an emergency.

It was our first time together as a crew, and everyone was cheerful. The TACCO had been in the squadron only a few weeks, and had made only one flight from the boat. There was some friendly rivalry between our crew and the assigned "go" crew, because we all wanted to go flying.

My crew walked to the flight deck and started preflighting our S-3B. As usual, the front-seaters did the external preflight, and the back right-seater and I did the interior. Aircraft 710 was spotted on the finger, just aft of elevator 4.

The pilot and COTAC had their heads outside the cockpit watching the plane captains when a master caution light came on. I noticed it and sang out. The pilot answered that the light had already been griped. In the back, the TACCO and I were finishing loading the computer.

We watched 702 across from us on the patio as it taxied toward the bow. We all hoped that 702's buddy store would go down. We barraged 702 with hexes – we probably sounded like four voodoo doctors.

The go tanker hadn't made it to cat 1 when the yellow shirt started breaking us down. After figuring out what was going on, the pilot and COTAC said, "Let's just go with it. Maybe we can sneak off." We taxied forward to cat 2. Crossing the JBD, we watched 702 take off. My pilot then spread our wings, stowed the gust lock, and set the flaps. The launch bar was down, waiting for the shuttle.

We sat for a moment. Then the pilot shook his head, saying, "No, no, I'm not folding my wings." After a few choice words, he raised the gust lock, folded the wings, spun out and started heading back aft. The yellow shirts spotted us on the patio and kept us manned up and turning until 702 got their package check. The pilot kept No. 1 running and listened to the radios for 702's status.

"Boss, 702, package sour."

Continued

My pilot answered, "Yea! Let's go, let's go, close the hatch." We started No. 2, and in a few minutes we called that we were up and ready. The yellow shirts broke us down. We taxied forward in a hurry to beat an aircraft that was just about to recover. This time we went to cat 1.

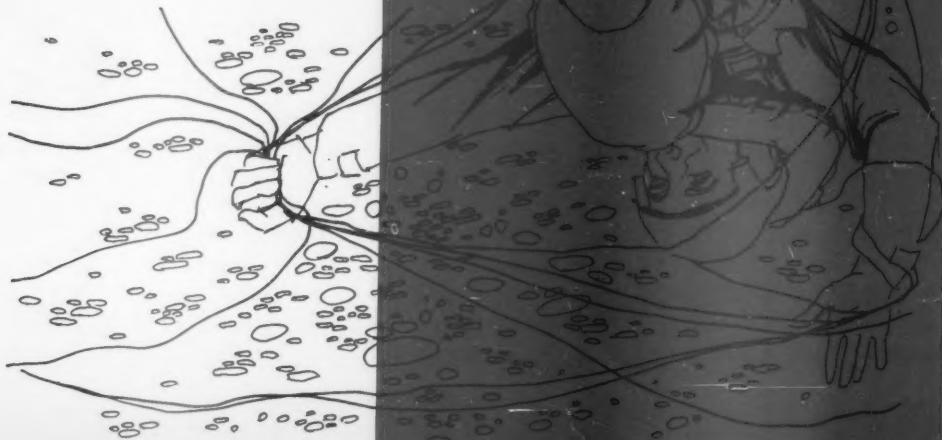
Crossing the JBD, the wings came over the top and spread. The pilot stowed the gust lock and shut down the APU. The COTAC followed the eyebrow checklist with his finger. He saw a 47K weight board, and twice told the air boss, "45K on cat one." The boss verified 45K, and we went into the shuttle. As the jet went into tension, the pilot pushed the throttles to military. There were no lights on the master caution panel. Tapes, pressures and gauges were good. As the pilot started his wipeout, I pulled back into my seat. The pilot recounted the sequence of events over the ICS: "Saluting, he's touching the deck, looking left, right, punching the button . . . Good shot!"

Then we were airborne. The plane settled slightly and started what seemed to be a normal right-hand clearing turn. I was leaning slightly right and forward, watching the COTAC's instruments. At about 15-degrees nose-up, we were in a smooth, steady roll to the right. As our angle of bank reached 45 degrees, I was thinking, "Man, what an aggressive clearing turn." Then the pilot started speaking in a calm voice that grew into a scream, "Oh, my god! Eject! Eject! Eject!"

I saw the COTAC's stick pressing against his left thigh, and we continued the roll to the right. Pulling myself back into ejection position, I tried to pull my handle, but someone beat me to it. I glanced outside. The center vertical windscreen frame was slightly above and almost parallel to the horizon. Investigators later estimated that I left the jet at 150 feet and 90 to 100 degrees angle of bank. The last thing I saw in 710 was my ARU display.

I heard nothing during seat ignition. I felt a hard thump

I felt a hard jerk on my torso harness. My body whipped around. I don't recall hitting the water, but when I opened my eyes, I was about 6 to 10 feet underwater. I opened my mouth, and water rushed in.



that spread through my body. Ejection is like getting hit from behind like a bus. What seemed like 15 seconds to me was really only two or three seconds. I recall feeling semiconscious and floating with a blast of wind in my face. I felt a hard jerk on my torso harness. My body whipped around. I don't recall hitting the water, but when I opened my eyes, I was 6 to 10 feet underwater. I opened my mouth, and water rushed in.

I thought, "Hey, that's not air!" Forcing the water back out of my mouth, I reached for the beaded handles on my SV-2. Before I reached them, there was a flash of white light as I broke surface. The ship was 200 yards in front of me. All four of the lobes in my SV-2 automatically inflated.

I cleared my eyes and looked around. I saw my helmet floating about 8 feet away to my left and an inflated raft to my right. 710 wasn't in sight, but debris was all around me. I checked my seat pan. It was broken open. I tried to grab the raft lanyard to pull in the raft, but I couldn't find it. Looking back toward the ship, I saw a parachute filled by an air bubble. I checked my Koch fittings, but they had already fired. I tried to make it to the raft, but battling the swells became too hard.

Looking toward the ship, I saw people on the flight deck running toward the starboard side. I started waving like crazy. Then I heard the helo, so I maneuvered to it. My left eye was swollen shut. I scooped up hands full of water and threw them into the air to attract attention. The Sea King came straight toward me.

As the helo entered a hover over me, the rotor wash made it tough for me to keep my good eye clear of debris and fuel. I looked up and saw the helo pilot looking at me. I signalled thumbs up and he backed off. I wondered if I was going to get a swimmer or a solo hoist. The procedures starting clicking in my mind. I snapped my lobes, stowed gear that hitting the water had loosened, and started to check my body.

I noticed the helo hovering about 100 yards away. The Sea King was hoisting one of my crew out of the water. I was relieved. Little did I know that I'd never see any of my crew alive again – I was the only survivor. By now, the ship seemed far away. I started getting impatient and anxious. Bobbing up and down, I yelled, "You can pick me up now!" The helo started toward me, and I went back to checking myself over. I tugged on my hoist ring, reached down, disengaged my seat pan, and let it sink.

A piece of foam rubber floated by, so I grabbed it to use as a protector to keep the water and fuel out of my eyes. As the helo entered a hover over me, the makeshift visor worked well. I turned my back to the helo to counter the rotor wash.

The recovery helo backed off, and I tossed the foam rubber away. I crossed my arms and waited for the swimmer. A moment later I felt a tug on my gear, and the swimmer came up on my right side. Recognizing the crewman, I greeted him, but he wasn't much for chatting. He coolly inspected my spine and checked for tangled shroud lines. I told him that I thought my left leg was broken. He started a buddy tow toward the hoist. The hoist touched water, and the swimmer hooked me up by my torso ring. Then he hooked up himself. He gave a thumbs up, and the hoist started lifting. As weight shifted to my left side, I realized how banged up I was. I gritted my teeth the entire hoist.

I had been in the water only 25 minutes. Out of the water, the wind chilled me. My heavy shivering really hurt my broken ribs, bruised left kidney and left side. I was also hypothermic.

The crew slid me into the helo backside along the floor. I was looking around to see who had been brought on first, but couldn't see him. The crewman kept attracting my attention and called to me to keep me from passing out. They kept telling me, "You're OK, we're going home." The helo turned and started back toward the ship.

I recall the Sea King slowing for landing and felt the aft tire touch down. We bounced a bit, then were on deck. Two corpsmen came up to the cargo hatch. After a brief discussion on how to move me, they finally got me into a stretcher.

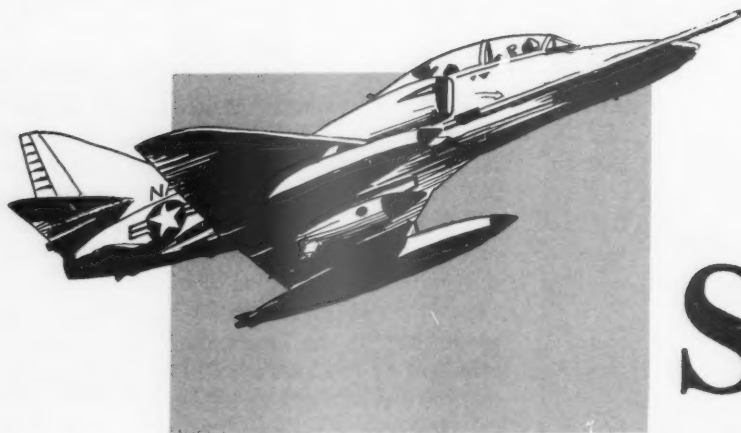
They carried me across the flight deck to elevator 2. I saw faces on each level of the island looking at me. The CAG flight surgeon met me on the flight deck level before the elevator dropped to the hangar bay. He asked if I knew where I was and started explaining what was going to happen. I knew that I was in good hands. I stayed in intensive care for three days, then flew off in a stretcher in a C-2 to Portsmouth Naval Hospital.

It was only circumstance that I was the sole survivor. My survival equipment did most of the work, but the survival training I'd received during my four-year career helped me keep my wits about me during this tragic episode. I was amazed at how much I remembered.

AW2 Mann is a SENS0 with VS-22.

Experience is a good school, but the fees are high.

Heinrich Heine
German poet



Soggy Milk Run

By Cdr. Mike Ruth

6 *Those of you familiar with the "Scooter" trainer will know that no fuel flow indicates a failure of the engine-driven fuel pump, and if that puppy goes, your chances of relight are exactly zero.*

THERE I was, four days away from my 43rd birthday getting ready for a "milk run" pax pickup in my TA-4. (Actually it wasn't my TA-4, and in fact it had a triple-zero side number and a "Flag's" name on the side.) It wasn't exactly "commander" weather out there (700 over, tops at 10), but the forecast at destination and return was encouraging. After takeoff, I entered the clag at 700 feet and continued normal climbout following departure's vectors to my flight plan route. At 6,700 feet, still popeye, the engine quit. I mean flat-out quit, just as if I had shut her down. No rumbles, no fluctuating anything, no bird strike, nada.

I nosed over, maintaining airstart airspeed. I deployed the RAT and broadcast Mayday. I checked the gauges. Everything looked within "shutdown" parameters, except rpm at 22 percent, and the most notable shutdcwn parameter of zero fuel flow! All this while I was still IFR. I felt like I was on a simulator EP check ride. You know, one of those where the IP throws every emergency in the book at you shortly after your simulated night cat shot.

At any rate, I did try a relight, naively hoping the fuel flow

gauge just happened to go toes-up. At the same time I was preparing to eject. Those of you familiar with the "Scooter" trainer will know that no fuel flow indicates a failure of the engine-driven fuel pump, and if that puppy goes, your chances of relight are exactly zero. In more than 20 years of flying, I have been shot at and hit, and dealt with a rash of emergencies. I had never had to resort to the proverbial silk let-down. I patiently (?) waited for the relight I was prepared not to get. I tried telling Departure that my jet was now a glider, and could *not* "coast" 10 miles back to base without any flame coming from my exhaust (who in their right mind would try it with 700 over anyway?). I decided to give her until 1,000 feet before performing my pull-up-slow-down, controlled, aircraft-jettison maneuver.

I am aware of what most of the "blue pubs" on jets say about "no thrust" below 5,000 feet, and I really wasn't trying to be a hero. I did, however, feel fairly comfortable with the situation, if gliding through the goo can be described as comfortable. At 1,000 feet, with no lightoff, I pulled up, leveled the wings, and punched out at 200 KIAS and 2,200 feet.

I remember the canopy going and a mild shock when the chute-opened. All the training came back (honest), you know, all that IROK stuff. Descent and water entry (of course, it had to be over the water for the old guy) were as advertised. Climbing into the raft was the same pain it was in the Pensacola training tank. I did forget to release my seat pan before getting into the raft. My current list of priorities was first: alive, second: not hurt, and third: get rescued. The seat pan didn't even make the top 100. Other than that, helo



pick-up was pretty much textbook with the SAR crew doing a fine job. (I'll *never* again precede the term "helo" with any four-letter adjective.)

My post-ejection physical exam was standard, except that no one ever told me they took *eight* vials of blood. They wondered why I got cold *after* I got to the hospital. My old body got an up-chit, and I stood CDO the next day. So, everything came out fine, and yes, it was the engine-driven fuel pump, thus removing any stigma of the dreaded "pilot error" MIR judgment, which leads to the more earnest discussion of this tale.

I'm not a psychologist, just a plain old VA dirt-mover; yet, it seems we in the rocket-seat community constantly read about the unlucky ones who didn't make it because they stayed with the aircraft too long and ejected outside the "envelope." Why does this happen? Fear of reprisal? Or the this-can't-be-happening-to-me feeling? I'm here to tell you that all the above are just set-ups for the proverbial farm purchase; yet, (and here's the "catch-22") these attitudes seem to come with the standard-issue Mark-1, Mod-0, Naval Aviator, competitive, type A personality. Couple this with horror stories about those unfortunates associated with pilot error mishaps, and it's not too hard to figure out why we push ourselves to the borders of the envelope, and, in some cases, fatally beyond. *There ain't no plane worth your butt!* Got it? If there was then engineers for Escapac, Martin-Baker and Stencil would be unemployed.

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I don't want to imply we should have a cavalier approach to our flying, relying on the seat to cure all our problems. There is no substitute for knowing the NATOPS, especially the immediate-action emergency procedures. The professional knows these cold, rehearses them regularly, and is ready for the worst. But, think about this: Have you ever noticed that the length of the "to do" list in loss-of-power or loss-of-control scenarios is directly proportional to your altitude and airspeed?

Translated into pilot-simplespeak, that means the lower and slower you are, the fewer things you have the time to do before you *must* leave the airplane. Don't believe me? Dust off the old PCL and check it out.

This macho-tough-guy mindset has killed too many of our shipmates, and we can't afford to lose any more. There's a time-honored phrase that goes something like "When in doubt, punch out." I hope you'll never be in doubt because you've been trained to know exactly when it's time to stay and when it's time to go. ◀

Cdr. Ruth is the Asst. ACOS for Ops and Training at CNATRA.

Night Landing Ejection

By LCdr. H.S. Bayes



"GEE, it sure is cold floating here practicing water survival." We've all thought this as we bobbed in the water waiting for a rescue helo during our Deep Water Environment Survival Training. "After all, I can swim. Plus with all that adrenaline pumping, I can handle any contingency once I'm in the water." Maybe, but the North Atlantic in fall and winter is just a tad cooler than an unheated pool.

Can you spell "hypothermia?"

With an ejection near the ship, the carrier's OOD will probably keep the ship in the ejection area and make it easier for the motor whale boat (MWB) to recover the aircrew. There are few things more nerve-racking for a SAR crew than trying to execute a rescue with "Mom" bearing down on you. Too many rescue platforms can be just as bad as too few.

The chopper has to adjust his wind-line SAR pattern and approach the sur-

vivor. The bottom line is that the carrier CO or Air Boss needs to quickly decide which platform – MWB or helo – to use and position the ship accordingly. Until the primary rescue vehicle – the helicopter – asks for help, the carrier should remain clear in a support role.

Flight-deck personnel often throw wands into the water to mark the crash site. Lookouts will often throw one Matrix Light in the water, as well. These extra lights require the helo crew to sort out numerous false contacts. The helo crew's night vision may also be effected, making it take longer to locate survivors. In cold water, the delay could be fatal.

In a recent ejection, the aircrew landed approximately 50 yards from each other. One aircrewman applied his DWEST training superbly while floating in his vest. By splashing water and illuminating his helmet with his flashlight (the LP-2 inflation pressure pre-

vented him from reaching his strobe), the rescue helicopter quickly found him and made the rescue within 13 minutes of the ejection.

His squadronmate, however, sat still in his raft without his helmet and no strobe in the shadow of the helicopter's

illuminated search area. His rescue was delayed unnecessarily. He assumed since he saw the helo, the helo saw him. SAR isn't a football game; don't take your helmets off and hit the sidelines until the game's over.

DWEST techniques can save your

life. In the real world, there are external factors that can't be duplicated in training. The rescue of these two crewman took 28 minutes, but it could have been quicker. Fortunately, the sea temperature off VACAPES that October was still moderate. ◀

LCdr. Bayes is an SH-3 pilot with HS-7. He is the squadron Safety Officer.

Know Your Priorities

By Lt. Michael Conn

MY pilot and I had just completed a successful day CQ. We were anxious to proceed with the night schedule. We'd spent the last two months in various bounce patterns, and we felt comfortable and ready for the more stressful night traps to follow.

We soon found ourselves in the marshal stack. After a 45-minute delay, we started our approach. The first trap was fine and helped alleviate our nervous jitters. We taxied to the cat and were soon airborne once more. We never suspected that this launch would be the last for aircraft 213.

I called the ball on final and continued with the self-contained CCA and VSI calls. Touchdown! Another good pass. I felt the normal tug and deceleration, but wait a minute — we weren't stopping. I looked at the airspeed (60 knots), too slow to fly and too fast to stop. No choice. I reached for the lower ejection handle. As I grasped the secondary, I saw a bright flash as the canopy left the aircraft. My pilot had beaten me to the draw.

I was pulled back in my seat, and with a swift kick in the pants, I was out. I looked down and saw the carrier's lighted deck surrounded by complete darkness. I had little time to react as I realized I was descending back to the deck.

"Legs together," I told myself, "Bend the knees, hit and roll." Seconds later, I was on my back with a crowd of flight deck personnel hovering around me. Then I was on a cold, metal table in my underwear with five different people asking me everything from "Where does it hurt?" to "What did you have for dinner?"

After reviewing the PLAT tape — we found out that the arresting-engine purchase cable had parted — the first thing that stood out was how quickly everything happened. From touchdown to my landing back on the deck took only 15 seconds. In that short time I made several important decisions, some good, some not so good.

Just as I had always heard about other experiences, most of my survival training immediately popped into my head.

However, it quickly became a matter of priorities. When I saw that the flight deck was practically empty, I decided not to use the four-line release to try to steer clear of the ship — although my pilot did just that. Since I had targeted the flight deck, I also chose not to inflate my LPU or release my raft. Looking back, it probably would have helped to have at least inflated my LPU.

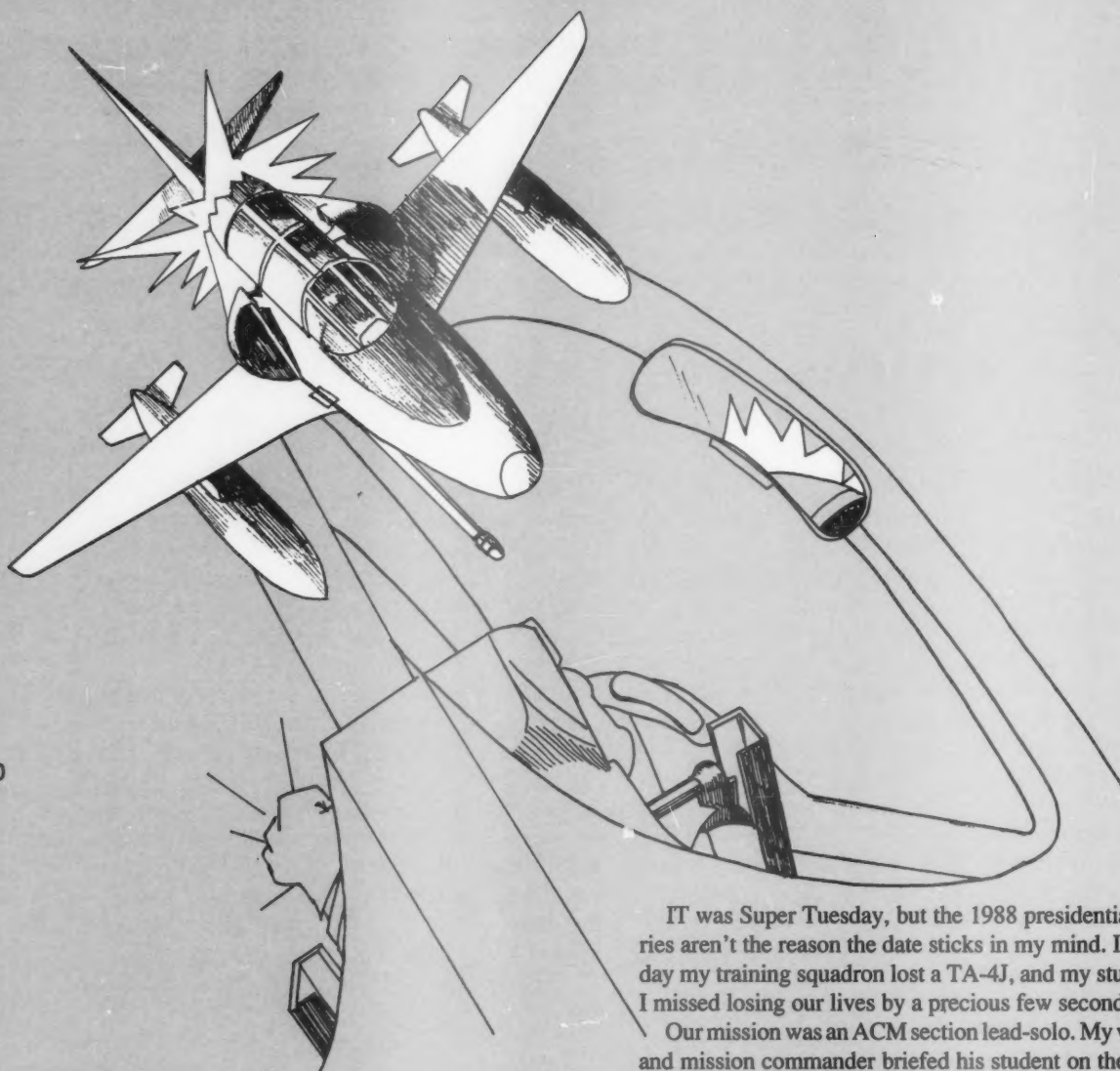
I did reach my koch fittings, but when I hit the flight deck, I wasn't sure of my exact location and immediately became concerned with going over the side. I chose not to release my fittings in case I needed the chute for the 60-foot drop to the water. This was not good headwork, and my back paid for it with scrapes and bruises. If it wasn't for the quick reaction by the people on the flight deck, my injuries could have been worse. As it turned out, I broke my left collar bone, either during the opening shock of the parachute or during the hard landing on the flight deck.

Always be aware of your surroundings. How far away is land? Are there other ships in the area? Is the flight deck crammed with turning aircraft? Always check and recheck your flight gear. If you're comfortable in your torso harness, you probably don't have a tight fitting. Time expansion plays a large part. I swear I had time to say, "Oh, damn!" three times between the canopy blowing and my seat leaving the jet.

In the end (a little pun, there) you are responsible for your own tail. Whether you have 100 hours or 1,000, the final decision to eject is yours. Don't wait for your senior pilot or RIO to react. My pilot and I said nothing to each other during our mishap, nor did anyone else call for us to eject. We made the decision in less than 1.5 seconds, and if we had waited longer, one or both of us might not have made it.

Finally, knowing your IROK procedures is a matter of life and death. You may want or need to rearrange priorities, but it's nice to have a game plan to start with. ▶

Lt. Conn is a RIO with VF-111.



Third Time's A Charm

By Lt. John Peters

IT was Super Tuesday, but the 1988 presidential primaries aren't the reason the date sticks in my mind. It was the day my training squadron lost a TA-4J, and my student and I missed losing our lives by a precious few seconds.

Our mission was an ACM section lead-solo. My wingman and mission commander briefed his student on the maneuvers as I checked the weather for the MOAs and outlying fields. As the CDO gave us our side numbers, a Marine lieutenant asked me if he could tag along in my empty rear seat to pick up extra experience in the ACM environment. It was a common request, and I said, "Sure."

When the mission commander and his student were ready, we reviewed the ROE and SOP items, then headed for the paraloft to suit up. On the way, we stopped off in Maintenance Control to review the aircraft books. The notable MAFs for my aircraft concerned a recent engine change and an oil-pressure transducer that had been replaced because of a vibrating gauge needle. What I didn't know at the time was that the engine in the jet now had been pulled three times for

oil-feed problems, but from *three* different aircraft, so the trend wasn't readily apparent.

Everything was fine as we took off and headed for the practice area. After a few clearing turns we were close enough to "drops-dry" to go right into a warm-up exercise. As we finished, we were heading west, with the weather clearing rapidly in that direction. Our preferred divert field would be available. At this time, I noticed the oil-pressure gauge needle was buzzing, but within normal limits. My back-seater's gauge was doing the same thing, and I made a mental note to debrief maintenance when we returned. The other instructor was ready to set up for the next exercise, a defensive maneuver that he wanted to demonstrate to his student.

We finished this maneuver heading east and began climbing out to a working altitude. As I reached my perch and pulled the power back, I heard a loud moaning that went away after a second or two, once I stabilized my speed and altitude. I moved the throttle back and forth a few times but couldn't get the noise to return. I was satisfied that I had a bad canopy seal, a fairly common situation in ACM when making large power reductions while changing altitude rapidly.

The next engagement went fine, and the instructor said he had had enough. As I approached my perch altitude and reduced power, I heard a loud rumbling in the aft fuselage that lasted for several seconds. It felt as if I was driving over a large FOD grate. I knew immediately that the grinding was coming from the engine, and even though the noise disappeared and cockpit indications were normal, I told the other aircraft I was heading home.

I made a right turn for the field and checked all my instruments. I couldn't find anything wrong. For lack of anything else to check, I even scanned the pressurization switches again, but they were normal, too. Then my student came up on the ICS and in an agitated tone asked me to look at the oil pressure, which was now rapidly climbing past 50 psi toward the high end of the scale. I immediately reversed my turn back toward the nearer divert field.

In a short radio exchange with the other instructor, I explained my problem then eased the rpm to 87 percent for bearing conservation. I rolled out of my turn at 300 knots and 15,000 feet. I could see the divert field about 30 miles away on the nose and warned my student to prepare to eject – if it came to that. I hoped that the engine would hang on long enough to permit an emergency profile. I was too optimistic.

The engine rolled back, and I began restart procedures, shifting the fuel control, popping the RAT and chopping the throttle. At least we'd have ICS. It was not a good feeling knowing I'd lost my engine and would probably not get it

back. I paused long enough to extend the rudder pedals full forward to minimize the chances of breaking my legs from thigh slap since I usually flew with them adjusted for full throw.

I now had 250 knots, 23 percent rpm and oil pressure at 12 o'clock, but not pegged. The chances for a successful relight were poor, but I decided to try. I made a fire check and the light was out. Before I could check my EGT, the second instructor called on guard telling me I was on fire and should eject. We were flying up to this point, had plenty of altitude, and if all else failed could always resort to a controlled ejection. But his call gave a new sense of urgency, and I knew I'd soon be trading my aircraft for something unknown.

I simultaneously braced myself and reefed the nose up for minimum speed. I hit the ICS with my left hand and told my student to stand by to eject. Then I dropped my left hand to the secondary handle. I could see him in my left mirror. He looked ready. I was just about to pull the handle when there was a tremendous explosion in the aft fuselage and my oxygen mask seized. Feeling an urgent need to breathe, I let go of the ejection handle and pulled my mask away. The control stick went completely slack, and I recall being apprehensive about the LOX bottle blowing the tail off. In fact, the empennage had separated almost intact at the aft wing line, causing a turbine rotor to shear from its shaft. The nose was pitching down as if it wanted to tuck under. Now I felt good about taking a ride in the seat, especially with 11 nothing left of my machine.

I resumed my position in the seat and let go of the stick for a two-handed grip on the lower handle. I tightened my grasp for a second try and checked my mirror. I saw my student removing his mask, his head forward out of the headrest and both arms up trying to release the bayonet fittings. If I pulled the handle, I risked breaking his neck or subjecting him to serious flailing. On the other hand, if I didn't pull it soon, neither of us would survive.

I waited a split second with my teeth clenched, then began pounding on the canopy with my left hand, using the accepted signal that nobody hopes to use. I pounded three times slowly before getting a reaction. His head snapped back into position, and I held my left hand high, thumbs-up, in a visual question. He responded with a fluttering nod that allowed just enough movement to acknowledge my question without jeopardizing his position. With that final understanding, I dropped my left hand to the handle for the third time and pulled hard. My wingman told me later that we made it out with two seconds to spare. My student told me he had gulped smoke, which is why he had removed his mask. Just after our seats cleared what was left of our Skyhawk, the wreckage fell away, engulfed in flames. ◀

At the time of the mishap, then-Capt. Peters was a Marine instructor flying with VT-22, awaiting an interservice transfer to the Naval Reserve. He now flies C-9s with VR-58.

JBD Strike!

By Lt. Bob Schrader

LINEUP is not an easy parameter to judge from the back seat of an F-14, especially at night, but as I saw the centerline of the landing area going away from us down the left wing after we touched down, I knew we were in trouble. We'd built up a hefty left-to-right drift as our Tomcat crossed the ramp. (We found out later we'd landed 21 feet right of centerline, between the 3- and 4-wire.) The drift continued as we hook skipped, and we hit one of our squadron's jets parked just beyond the foul line. That was bad, but things got worse. As we rotated off the angle, our right wing smashed into the JBD that had been raised for a launch off of cat 2.

The back-up LSO screamed, "Eject! Eject!"

"I've got it," my pilot replied. He'd selected full afterburner, and I verified that we were, in fact, climbing away from the ocean. The crippled jet flew a little longer and then suddenly rolled off to the left and pitched nose down.

This time, the Air Boss, Mini Boss and the entire LSO platform were yelling, "Eject." My pilot didn't offer any better ideas, so I pulled the lower handle.

We've all heard stories about time compression and how the mind works during periods of high stress. My first thought when the canopy jettisoned and the seat fired was, strangely enough, that we'd hit the water. All I remember is being surrounded by fire and explosions. Then, I seemed to tumble forever. I heard the spreader gun fire, felt the tug, got one swing and was in the water.

I went under about 8 feet. My mask was still on, and I must have been breathing emergency oxygen because I don't remember gulping any water or gasping for breath. As I broke the surface, I reached for my koch fittings and was pleasantly surprised to discover my SEAWARS had performed as advertised. I searched for the beaded handles of the LPA and realized it had already inflated itself.

I bobbed over and through the 10-foot swells for a few minutes. The SAR helo came over, and the crew pointed the searchlight at me. I gave them a thumbs-up, so they left me and went looking for the pilot.

I figured the pilot must have been injured during the ejection because the helo was gone an awfully long time. I was afraid they were going to lose me, so I rummaged through my survival vest. I located my day-night flare, but I must have been doing something wrong because I couldn't

get it to activate. I took my flashlight out and tried to read the directions on the side of the cylinder. There are about nine steps, and every time a wave crashed over my head I lost my place and had to start over again.

I took out a pencil flare, looked at it and decided not to use it in the rough seas for fear of shooting myself in the face. I searched for the strobe, but couldn't reach far enough behind me to locate it. All I had to mark my position was my flashlight.

After about 10 minutes, the chill of the 67-degree water started to affect me, so I reached under me and grabbed the seatpan and deployed the raft. It filled up nicely and I had no trouble getting into it. Once out of the waves, I felt a little more at ease. As I was eyeing my flares again, the helo flew over. I tried signaling with my flashlight, but they didn't see me.

On the third pass, the SAR crew trained the spotlight on me once again. They hovered overhead and dangled the hoist near me. I didn't see a swimmer, so I got out of the raft and put on the horsecollar. As I was doing that, the swimmer appeared out of nowhere and checked me out. I gave him a thumbs up and seconds later, we were on our way up toward the helo. As we were pulled inside, I was glad to see my pilot unharmed.

I learned a few things from my ejection that night. Floating in the water is the wrong time to educate yourself on survival gear. Review equipment location and use.

The helo had trouble finding me because I had left the leather cover on my visor. This obstructs all the reflective tape when viewed from the front. The solution is to use a clear visor at night.


Don't wait to deploy your raft. You'll think a lot more clearly out of the water.

The night strobe is located pretty far back in the vest (about where your kidney is.) In the heat of battle, I couldn't find it. Also, you might have to vent air from the LPA after it auto-inflates in order to reach anything in the vest.

Wrapping the horsecollar around me twisted the cable around my legs. I didn't realize it at the time, but the swimmer untangled me before the helo hoisted us. He told me later that the cable would have probably severed part of my leg when the slack was taken up.

Lt. Schrader is an F-14 RIO with VF-32.

Wild Ride!



An F8U on a two-plane VFR flight from Massachusetts to South Carolina flamed out at 47,000 feet over North Carolina.

The pilot noted engine rumble and thumps. The fire warning light came on, the pilot reduced power, and the light went out; however, the RPM dropped to zero, and the EGT fluctuated to a high of 800° then decreased to zero. The emergency power package was extended, and the emergency generator switch placed in the ON position, with no response. Realizing that he was without radio, instruments and power controls and the stick freezing in the neutral position, the pilot decided to eject before descending in uncontrolled flight into the top of a thunderstorm. The pilot ejected directly over an extensive thunderhead estimated to have been 100 miles in diameter. The speed at the time of ejection was Mach .82 or approximately 210 knots IAS.

His dramatic 40-minute, nine-mile descent through a violent thunderstorm was widely and somewhat inaccurately covered in the nation's press. However, because of its great interest to Approach readers, here is a more detailed account of the pilot's experiences after ejection compiled from his statements during the accident investigation:

"MY first sensation was one of severe cold and extreme expansion as if I were about to explode. The cold rapidly changed to a burning, tingling sensation. I felt as if millions of hot pins were sticking in me. I sensed that I was tumbling

and spinning like a pinwheel. My arms and legs were out, and I could not get them in.

"In a matter of seconds I realized I had retained my helmet and mask but no longer had my visor, although I had been flying with it down because of the bright sunlight and reflection from the top of the clouds. I believe it was torn away on ejection.

"I opened my eyes and saw I was entering wispy clouds. I was going into the tops of the fleecy overcast that I had flown through just a few minutes before. I seem to remember saying to myself, 'Well, you're entering it, and it's about 44,000 feet.' About this time I managed to get my arms in to my body.

"I looked down and noticed that I was absolutely forcing my torso harness. It looked like it was going to burst. My stomach popped out under my life vest as though I were pregnant.

"I had the feeling that I fell and fell and fell and fell for an eternity. My oxygen mask was beating against my face. I held my mask with my right hand. I put my left hand on my helmet which was pulling on the chin strap as if it was going to go off. My left hand was very cold and numb – it felt like somebody else's hand, not mine.

"Sometime during the free fall, my right glove got in my way. It was inflated like a balloon, so I let it go – just jettisoned it. I remember seeing it go off, and I thought 'Why did I throw the glove away?'

"During the free fall I had the feeling of not being able to exhale; in fact, I seemed to have to work very hard to be able to exhale, but all I had to do was open my mouth and in-rushing air just seemed to fill my lungs. At this time it was getting a little bit darker in the cloud.

"I had an urge to open the parachute, but I told myself I was still far too high and if I did I would either freeze to death or die from lack of oxygen. I still had this tingling sensation, but I sort of had the feeling that I was slowing down and falling into denser atmosphere, and I seemed to be getting a little warmer.

"I was still in the free fall and thinking about opening the chute. It was quite dark, but I don't recall any great moisture or any great violence. It seems like while I was thinking about opening the chute, all of a sudden there was a terrific jolt, and I knew the chute had opened. I looked up, but by this time I was in such a dense, dark cloud that I couldn't even see my canopy. I reached up and got hold of the risers and gave them tugs on both sides; it felt like I had a good chute.

"From here on, my memory of what happened seems much better. I now clearly recall running out of oxygen, having the mask collapse against my face, and I believe I disconnected it from the right side as I always do. At about this time I thought I definitely had it made and was going to survive. However, I noticed I was still bleeding from the nose, my right hand was cut, and my left hand was frozen

numb, but the pressure was going, and I was much more comfortable. Then the turbulence started, and I realized I was entering the thunderstorm.

"As the turbulence started, I was pelted all over by hail. Then I fell a little bit more, and I seemed to be caught in a violent up-draft. I had the feeling that I was being tossed around . . . that I was actually going around in a loop, and I was looping over my canopy like being on the end of a centrifuge. I got sick in the turbulence and heaved.

"Sometimes I could see the canopy, and sometimes I couldn't. The tossing and turbulence was so violent it is difficult to describe. I went up and down . . . I was buffeted about in all directions . . . at times I felt like I was going sideways. One time I hit a very rough blast of air – I went soaring back up and got in a very severe hailstorm. I remember the hail beating on my helmet. I had the feeling it would tear my canopy up. The next thing I knew I was in rain so heavy I felt like I was standing under a waterfall. I had my mask loose, and the water was so great that when I tried to inhale I got water with the air like I was swimming. It seems to me that some time in the storm I noticed my watch and was surprised that it had stayed with me. I'm not sure, but I think I was able to tell the time by the luminous dial . . . I believe it was around 1815.

"At one time during an up or down draft, the parachute canopy collapsed and came down over me like a big sheet. I could see my legs in the shroudlines. This gave me some concern – I thought maybe the chute wouldn't blossom again properly, and since the hail seemed to be larger now, I was afraid it might damage the canopy and put holes in it. I felt the risers, and everything seemed all right.

"At this time, I looked down and saw what appeared to be a big black elevator shaft. Then I felt like I had been hit by a blast of compressed air, and I went soaring back up again – up and down – sideways. How much of this soaring went on I don't know. I had the feeling that if it went on much longer I was not going to maintain consciousness. I was being tossed around and beaten around, and I wasn't quite sure how much more I could take.

"The violence was so great that I thought that if it doesn't stop soon, my gear will come apart . . . my chute will come apart . . . and my straps will break . . . I will come apart. Stretching . . . twisting . . . slamming . . . the turbulence of this thunderstorm was so violent I have nothing to compare it with. I became quite airsick, and I had considerable vertigo. Again I had the feeling that I couldn't take much more of this, but if I could only hold out a little while longer, I would be falling out of the roughest part of the storm.

"The lightning was so severe that I kept my eyes closed most of the time. Even with my eyelids closed, there was a blinding reddish-white light when the lightning flashed. I felt rather than heard the thunder; it just about burst my eardrums. As I recall, I had the feeling that I was in the upper

part of the storm because the lightning seemed to be just flashes. As I descended, I seemed to see big streaks headed towards the earth. All of a sudden I realized that it was getting a little calmer, and I was probably descending below the storm. The turbulence grew less, then ceased, and I realized I was below the storm. The rain continued, the air was smooth, and I started thinking about my landing.

"By now my shoulders and legs hurt pretty bad. I checked myself over again and thought I was OK. I kept looking down and said to myself 'Under the storm you probably won't have more than 300 feet.' It was just like breaking out when you're making a GCA approach. First thing I saw was green, and then I was able to see trees. Then I knew I was very close to the deck.

"I remember seeing a field off in the distance, and I thought there must be people nearby. As I got close to the trees, I suddenly realized that there was a surface wind and I was being carried horizontally over the ground quite rapidly, maybe 25 knots. I oscillated about three times, then went into the trees. It seemed that my chute fouled in two pine trees, and I continued in a horizontal position with the wind, then swung back to the left. I came crashing back through the trees like a pendulum and hit a large tree with my left side. My head, face and shoulder took most of the blow. My helmet was knocked crooked, but I think it did a great deal to save me here. The blow was so violent that it twisted my helmet back on the right side and pulled the chinstrap so tight over my Adam's apple under my chin that I had to loosen it when I got on the ground. Anyway, I came down with a crash. I slid down and landed on my side. I was cold and stunned, but still conscious. At first I thought I had broken something and was paralyzed. Pretty soon, however, I was able to move my head and then my arms. I checked the time; it was between 1840 and 1845."

The pilot got up shakily, freed himself from his chute and started to make his way out of the woods. He panicked momentarily, then recovered. Although it was quite dim in the woods, he observed a sawed-off tree stump nearby. He looked around; there were several others. Reasoning that if men had been logging, there must be a logging road in the vicinity, he set up a square search. On the third leg, he hit the road. Following the road, he came to a clearing and a cornfield. Beyond the cornfield he saw automobile headlights. Making his way to the two-lane highway, he stood on the edge of the pavement and tried without success to wave down a car. Some 15 drivers went by without stopping.

"I must have looked like something real unusual – all wet and bleeding and standing out there in my flight suit in the dark and rain," he states. "I guess they figured I was drunk. Then after all these other cars had kept on going, a car came by, and I thought I heard a boy say, 'There's a pilot, daddy.'"

The car went on down the road, turned around and came back. The pilot's ordeal was over. ◀



ANYMOUSE

Uncontrolled Herk

The KC-130F tanker left El Toro for a night, aerial refueling mission over NAS Fallon. The Hercules had 65,000 pounds of JP, and its overall weight was 160,000 pounds. Once established on track, the crew got word that their receiver aircraft were grounded for weather. The tanker asked for clearance back to base at FL 230.

While the tanker waited for clearance, its flight engineer (FE) saw that the No. 4 prop's low-oil light was on and he told the crew. All other instrument indications were normal. The FE set up for fuel dumping and secured the synchrophaser in preparation for a precautionary shutdown of the No. 4 engine.

Believing that the problem was a faulty propeller float, the plane commander told his copilot to rock the wings. The plane commander also told the FE to shine a light on the nacelle with the aldis lantern to check for leaks. The aldis lantern was useless because of window reflection.

There were no visible leaks — which is not to say a leak did not exist. The plane commander told his crew to make another visual inspection when the aircraft cleared the snow storm it was flying through. About 10 minutes later, the Herk received clearance back to El Toro. The crew made the additional visual check in VFR conditions but couldn't find a leak.

The plane commander then asked why the synchrophaser had been secured. The FE replied, "to facilitate shutdown of No. 4 engine." The commander said he had no intention of securing the engine at 23,000 feet and a gross weight of 140,000 pounds. The FE replied that the dump system was operable. The plane commander decided that dumping fuel or a precautionary approach

would not be necessary because it would be a waste with a bad float. Furthermore, prop low-oil lights of commercial 130s (L-382s) had been removed some time ago, and he felt it should have been done on military Herks as well. The light remained on for the rest of the flight.

The commander briefed the crew on the landing saying he would require a pitchlock check before the landing. The FE had already checked engine indications and said, "The propeller is not pitchlocked."

The landing was uneventful with an aircraft weight of 135,000 pounds. The navigator noted that the aircraft had been operating for the past hour and 20 minutes with the No. 4 propeller low-oil light on.

In retrospect, crew coordination dissolved because the crew members did not agree amongst themselves. They compromised NATOPS procedures for the sake of personal opinion. Directional control of the aircraft could have been lost if the propeller hydraulics had failed.

Tankermouse

NATOPS says that prop low-oil lights with normal engine indications require engine shutdown. Why did this plane commander ignore NATOPS? There could have been several reasons including "drift down" into severe icing, repeated discrepancies regarding the No. 4 prop oil light, or previous experiences. However, if the only basis for his decision was his belief that the warning was because of a malfunctioning float, then he showed poor judgement.

Most aircrewmembers reject the thought of deviating from NATOPS unless it is directed by higher authority to save the aircraft or to complete a mission of high operational necessity. Sometimes, though, we deviate from the rules in the interest of

expediency. This plane commander showed this mindset when he said that commercial 130s didn't require prop oil light systems and, therefore, neither did Navy aircraft. But what if there really had been an oil leak and the 135,000-pound aircraft swerved off the runway during the landing rollout? — Lt. Ken Underwood, C-130 Analyst, Naval Safety Center

Who's Out There?

The Navy Air Logistics Office (NALO) assigns callsigns to C-9 missions in sequential order, i.e. RU 881, RX 882, RS 883. Normally, this is not a problem. However, when mission tasking is heavy, as in air wing movement to and from NAS Fallon or a carrier homeport, C-9s with similar callsigns can be sent to the same field at the same — or nearly the same — time. The pilots and controllers can get confused. It's just a matter of time before a C-9 takes a wrong vector or altitude in the terminal environment because of callsign confusion, and a mishap occurs.

I've talked to people at NALO twice about this problem, but have not received a satisfactory response. Both people said that the computer assigns the callsigns randomly. If that's the case, why not change the program to assign random callsigns to each flight? There are enough problems in the high-density east-and west-coast traffic corridors without adding more.

ConcernedVRmouse

● *NALO considered this mouse's point and has instituted a change in the way it assigns callsigns. The change should be in place as you read this, and involves keeping the two-letter, three-digit callsign. However, to give a larger number spread, the three digits will either begin with an even number and end with an odd number, or vice versa. For instance, a former sequentially-assigned callsign of RX 882, will now automatically become RX 883.*

Of course, even with this change, the bottom line is be alert. The final responsibility always rests with the folks in the cockpit.

Hoover Horror

Ejection came five seconds after leaving the deck, but unfortunately we were outside the seat's envelope.

By Lt. William K. Henderson



A PLAT photograph shows the Viking's left roll as it leaves the deck.

I WAS a nugget on my first deployment. Our battle group had just completed a successful at-sea period in the North Arabian Sea. During that time,

our air wing participated in the largest U.S. naval engagement since World War II.

We left Subic for a one-day transit to

Hong Kong. My crew was on the first launch of the day, and our spirits were high. On the way to the flight deck, I saw that it was unusually windy, but clear. We had spent five rainy days in the P.I., and the blue skies were welcome.

During the plane-captain checks, our aircraft's leading edge flaps would not operate properly. The COTAC called the Boss, and following NATOPS, asked for 20 knots of excess end speed on the cat shot.

The stroke felt good, but as we started our climbout and clearing turn to the left, I sensed that the S-3 was not gaining altitude and was continuing its left bank. I could see the pilot's attitude gyro from my right rear TACCO seat. The gyro read 45 degrees, left wing down. Instinctively, I knew we were in a lot of trouble.

The COTAC said to the pilot, "Go easy with it. Don't fight it." Then I felt fire and heard noise as my ESCAPAC shot up the rails. Ejection came five seconds after leaving the deck, but unfortunately, we were outside the seat's envelope. Our Viking was in a 110-degree left bank at 90 feet above the water. The SENSO was fired at about a 45-degree angle toward the water. My

157:13:11:10:720

65 F 26 031



The roll continues as the author ejects from the stricken S-3. He was the only survivor.

seat was on the high side of the roll and had enough trajectory to allow the chute to partially open and separate me from the seat before water entry. A half-second later, the front seats cleared the aircraft. At this point, the plane's angle-of-bank was nearing 140 degrees. The COTAC's trajectory was similar to the SENSO's. The pilot's seat cleared the cockpit just before water impact.

I realized I was alive when the bubbles and ocean foam churned around my face. I truly believe that I would not be here today if I had not worn my oxygen mask. It gave me two important advantages. First, I was breathing oxygen, not choking on water. Second, the

mask kept my helmet on, which kept me from getting knocked out when I hit the water.

After the churning subsided, I pulled off the mask. I heard the hissing sound of the emergency oxygen, and I noticed I was floating upright. The FLU-8 had worked. I realized I was entangled in my shroud lines. Knowing I was in a life-or-death situation, I panicked. The chute was about 5 feet away, and the swells were 6 to 8 feet. I was a perfect candidate for a human sea anchor. SEAWARS had not been installed on my koch fittings.

As I struggled with the shrouds, I remembered being in a similar circum-

stance during water-survival training at Pensacola. I told myself to calm down and disentangle the parachute. I released the upper koch fittings and started taking a line at a time over my head, without kicking, and gently sculling backward. I finally worked myself free as the first helicopter arrived.

As the H-3 approached, I waved and splashed water over my head. The helo crew could see I was moving, so they went to help the others. A second helo picked me up soon afterward.

When to eject must be addressed at every brief. Trust me, there is no time to discuss it once the time comes. In my case, I was the lucky one. I survived.

Lt. Henderson is an NFO with VS-21.

Just Hangin' Out

By Lt. T.J. Roorda

I shot flares through the forest canopy as I got weaker and more nauseous. I found some water that had been in my SV-2 since last summer. Water never tasted so good, but my left leg had gone numb a long time ago.

"WELL, this is a fine situation I've gotten myself into." That was my first thought as I hung suspended, my feet dangling 70 feet above an Alabama forest. I couldn't save myself. I quickly realized that I would have to wait for either the SAR helo or that for the branch that I was hanging from to break. I hoped it wouldn't.

I had just ejected from a burning TA-4J and had floated down from about 14,000 feet. During my descent, I came up with two plans. The first was to maintain a tight spiral down to a large, deforested field. But there was a strong upper-level wind carrying me to the southwest. My second plan was to ride the wind to a smaller field, southwest of the large field. A three-quarter-mile strip of trees separated the two fields.

At about 4,000 feet, I realized that the wind was too strong and that I couldn't land in the large field. OK, a little more left-parachute down, continue my turn and high-tail it for the smaller field. Somewhere between 2,000 and 3,000 feet, the wind slackened and changed direction, taking away my only source of power.

I was going to land in the trees 50 yards short of my second field. I decided not to inflate my LPU, and I assumed what I thought was the recommended tree-penetrator position: feet firmly together, arms crossed, visor down and mask on. The Navy's official parachuting technique is to make the body as streamlined as possible, knees together, toes pointed downward, visor down, LPU inflated, arms across the chest with hands tucked under the

armpits, and head down into the arms to protect the face. I crashed through the forest canopy unscathed, but my parachute snagged a pine branch that had spent 50 years waiting for me.

The scene is funny, looking back on it. The branch that had caught my chute turned me into a pendulum at the end of the risers. I looked in the direction I was swinging and discovered I was headed for the trunk of the mother tree that had snagged my silk canopy.

"This is great," I said, "I'll grab the tree, hug it for dear life, and shinny down to the ground." I grabbed the trunk but the dry bark peeled away in my hands. The risers pulled me away and I swung toward another tree. I

grabbed for a small branch on this second tree but, it, too, crumbled like dry kindling. The risers pulled again and away I went, back toward Momma tree.

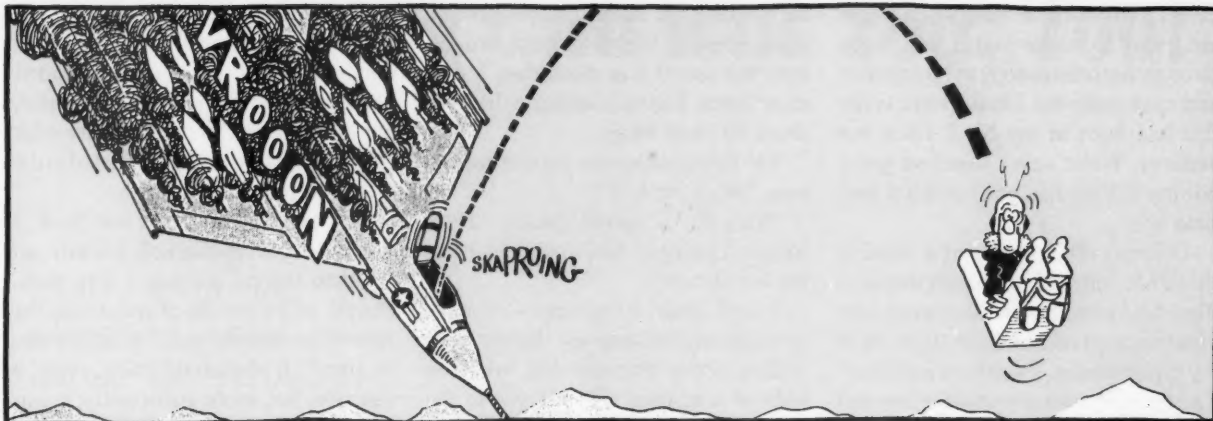
I lunged at the first tree, my fingers inches away from the bark. Not enough energy to get me there. I swung back to the second tree but was only able to kick it. Slowly, I came to rest between these two trees, with the sun glistening through new leaves, birds twittering and squirrels running about. Nature was oblivious to my predicament.

So, I waited. As I said, I hoped the branch would hold, but now, it started creaking - loudly. I first thought about lightening the load by discarding my seat pan. I dropped it, watching it as it fell - and fell. The soft echo I heard after seeing it hit told me that falling would not be good for my health.

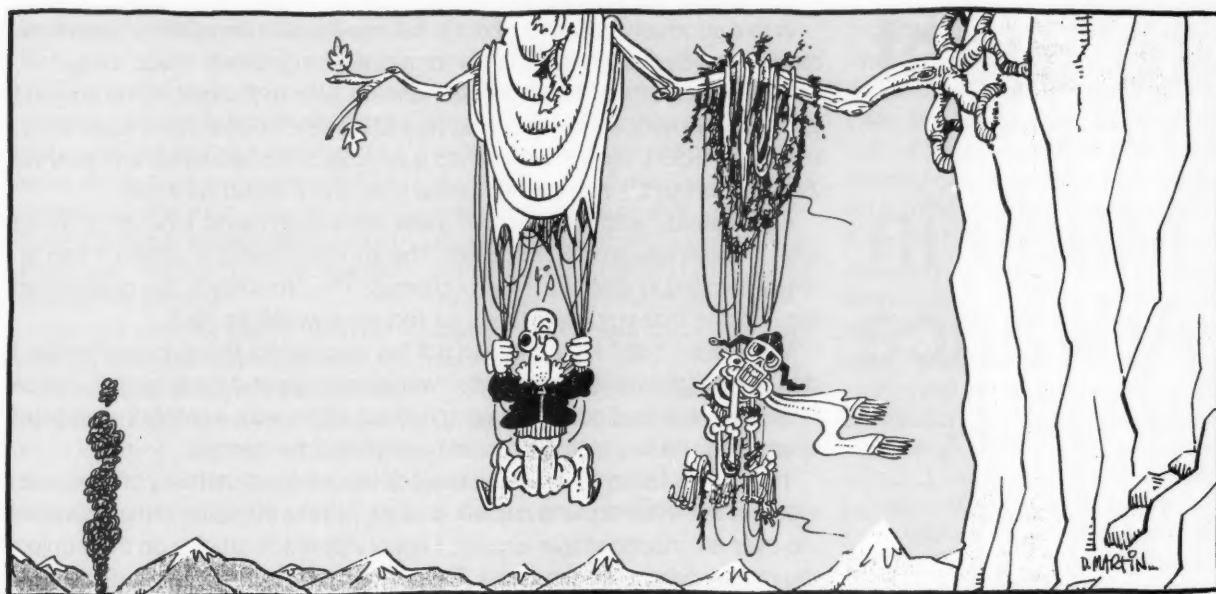
I was suspended mainly by the left riser which put a lot of pressure on the left side of my groin, pinching the artery. I began feeling pain as my leg fell asleep. I remembered our flight surgeon telling us that in a test, a pilot passed out in 10 minutes after being suspended from a tree in his harness.

I had to get the blood moving again. I pulled on the risers. Ah, what a relief! But the tree let out a loud creak and groan. I sank back into the groin-gripping torso - didn't want to make Momma mad.

Time took on a new dimension. I worried about passing out and not hearing the SAR helo. I felt nauseated and thirsty. Foolishly, in mild shock, I did not even think about using my PRC-90 to talk to the aircraft I heard flying over



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Cartoon by Don Martin, courtesy MAD Magazine. © 1986 by E.C. Publications, Inc.

me. Here's an important safety tip: EMCON is not a good thing when people are trying to rescue you. I shot flares through the forest canopy as I got weaker and more nauseous. I found some water that had been in my SV-2 since last summer. Water never tasted so good, but my left leg had gone numb a long time ago.

Delirium set in. I remember wishing that SAR helicopters had afterburners. Then I did something really stupid: I devised a master plan on how to get out of my torso harness. I would swing down, Tarzan-style, swing to another tree and eventually get to the ground. I pulled my right arm from the harness. Somehow this reduced the pressure on my leg and I woke up. I abandoned my plan.

This may sound strange, but I found that the best way to avoid passing out

was to breathe deeply and concentrate on relaxing my body. I stayed awake and eventually, I heard the helo. I waited until the sound was close then I shot more flares. The helo landed in the field about 50 yards away.

The first question the crew asked me was, "What day is it?"

"May 26," I replied quickly. "How long is it going to take you guys to get me out of here?"

It took about 10 minutes – 55 minutes after my first attempt – before I was scaling down Momma tree, with the help of a rescuer. When I got to the ground, the corpsmen almost made me want to get back up the tree. They vigorously executed their procedures. They cut my G-suit, my torso harness and the left sleeve from my flight suit. They stopped at my flight suit legging when

I convinced them that my leg wasn't broken.

Then they strapped my head down tightly, like they're supposed to, loaded me onto the helo, and off we whopped, out of the forest, to get the other pilot from my Skyhawk. He had landed in the large deforested field.

The next day, back at our NAS, I thought about my ejection. Luckily, all I had to remind me was a sore neck. People asked me lot of questions; the most common one was, "What's it like to eject?" It was excruciating, scary, a fast ride, but, more importantly, it was necessary.

Another question people asked me was, "What was it like to be stuck so high in the trees?"

There are better ways to appreciate nature on a sunny May afternoon. ◀

Lt. Roorda is an F/A-18 pilot with VFA-25. He is the squadron NATOPS and Asst. Safety Officer.

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Decision to Eject — Made in Advance

By LCdr. Rich Bruce

ALMOST ejected today. I made the decision, but whether I could have actually done it is another matter. I was the Red Air mission commander during a multiservice exercise. I had a lot of aircraft at my disposal; my opposition had a few more. There was no reason to believe in the "Big Sky theory," especially as the event progressed and our defenses were beaten down into the low altitude arena.

With a good tally-ho, I was about to follow a Blue Air aircraft into his altitude block. I decided to roll out slightly for a quick belly check. Good thing, too. One of my aircraft was looking for a chance to get into the fight. As he decided to do his own belly check, I entered his HUD's field of view. More accurately, I filled his HUD's field of view. I had a preconceived response and pushed the stick forward. I was slightly below him, and I hoped he'd pull.

As I pushed, I also started to roll a little more wings level. I thought it would offer a better ejection environment. The survival instinct is strong. I had already decided to eject if a midair occurred. The proximity to the ground had me thinking that any opportunity for recovery would be slim.

What didn't I do? My hand had not yet reached for the ejection handle. I don't know if the violence of a midair would have allowed me to get to it. I hope I never have to find out. But having had experience as a safety investigator of a midair, I'd like to think I could have pulled the handle.

I had never faced the decision to eject, though I had certainly briefed such a possibility. Even at plane captain-boards, I stress the value of the individual life over an uncontrollable aircraft. I enjoy *Approach* articles on this subject the most – now, more than ever. Things happen fast; make your decision in advance. ▶

LCdr. Bruce flies F/A-18s with VFA-195. He is the squadron's Aviation Safety Officer.

approach/july 1990

The Viking Can Kill You, Too!

By Lt. George L. Cowan

Viking aviators should know when the S-3 places its entire crew outside the ejection envelope.

A RECENT S-3 mishap has raised concern among Viking aviators. This incident, one of four S-3 Class A mishaps caused by uncommanded roll, has some of us asking hard questions about our aircraft, our knowledge of ejection seat limitations, and our ability to pull the handle in time.

Before the S-3A production line closed, 187 aircraft were completed between 1973 and 1978. The average airframe is now about 16 years old, with more than 4,000 hours and 800-900 cat shots and traps. The aircraft has been steady, reliable and relatively safe. With a 2.70 Class A mishap rate since 1977, it is statistically safer than most other carrier aircraft. But the planes are getting old and are being used more extensively than originally envisioned for demanding operations like defensive combat training, mining, bombing and low-levels. We must be aware that the mishap rate may rise.

The S-3 uses the ESCAPAC 1E-1 ejection seat—nearly identical to the A-4's seat. It is a proven, reliable seat. But between carrier operations and low altitude, steep angle-of-bank ASW maneuvering, S-3 crews spend much of their flights close to the edge of the



ejection envelope. Have S-3 crews become complacent? Are they too optimistic about their seat's capabilities? NATOPS does not emphasize the various limits of the ejection envelope. A careful look at the envelope diagrams reveals that as an S-3 leaves the flight deck on a cat shot, a nose attitude of five degrees down, or a bank angle of 30 degrees, places the entire crew outside the ejection envelope, even with zero sink rate.

More extensive coverage of the envelope in NATOPS and additional crew training might improve the ejection survival rate.

Finally, are we sufficiently prepared

to initiate ejection fast enough to get everyone out safely? Or is a safe ejection impossible in tight situations because the crew is waiting for the pilot's call, or because once the pilot determines he can't save the aircraft, he tells the COTAC or copilot instead of doing it himself? What effect does temporal distortion, a suspected killer in many delayed ejection attempts, have on your reaction time? (See "Temporal Distortion," *Approach*, June, 1982.)

We need to know that ejection may be necessary, our seat's envelope, and when to go. If the handle has to be pulled, do it before you're out of the envelope! Your life depends on it. ◀

Lt. Cowan is an S-3 pilot with VS-33. He is the squadron's PAO.

The one who complains about how the ball bounces usually is the one who just dropped it.

Ace L.



Left to right: Lt. Phil Waddingham, Lt. Jeffrey Graham, Ltjg. John Thomas, Lt. John Henry

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Lt. Phil Waddingham
Lt. John Henry
Lt. Jeffrey Graham
Ltjg. John Thomas
VAQ-132

While performing a flaperon roll on the Fallon Electronic Warfare Range, the crew felt their EA-6B shudder as it passed through 180 degrees of roll. Lt. Waddingham (pilot) completed the roll and began climbing. The station one jamming pod had separated from the aircraft, traveled outboard and forward, and sheared off approximately 8 feet of the left wing.

The crew began the damaged aircraft checklist, and Lt. Henry (ECMO 1) contacted Fallon Approach to declare an emergency. With the help of Lt. Graham (ECMO 2) and Ltjg. Thomas (ECMO 3), Lt. Waddingham and Lt. Henry completed four additional checklists and prepared the aircraft for landing. The loss of the wingtip caused a complete loss of the combined hydraulic system. They had to blow down the landing gear by the emergency method. The loss of the outboard slat and flap required a no-flap-no-slat approach.

After slow-flying the Prowler, Lt. Waddingham determined the minimum safe airspeed was 180 KIAS and was forced to actuate the emergency gear extension system at this speed, 30 KIAS above the normal limit. With the control stick at full right deflection and with full, right flaperon trim, Lt. Waddingham made a successful field arrestment.

Postflight inspection revealed that the Aero 7A bomb rack had failed structurally, causing the pod to leave the aircraft.

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BRAVO ZULU

Capt. Peter C. DiTullio, USMC
1stLt. David J. Anderson, USMC
HMLA-267

Capt. DiTullio and 1stLt. Anderson were flying an afternoon nap-of-the-earth (NOE) mission in Devil's Canyon on the Northern Camp Pendleton Reservation. During a descent down the face of an 1,800-foot mountain into a narrow canyon, the AH-1W's No. 1 engine failed. Capt. DiTullio stabilized the helicopter in safe, single-engine flight and told his wingman about the emergency.

1stLt. Anderson told Capt. DiTullio that a right turn down the canyon would bring them into an open area that would provide a safe place to land. He then warned Capt. DiTullio of a set of 200-foot-high, high-tension power lines at the mouth of the canyon. The power lines were not yet visible to the aircrew.

Capt. DiTullio kept the Cobra clear of the power lines and surrounding high terrain and made a safe landing.



Left to right: Capt. Peter C. DiTullio, 1stLt. David J. Anderson



Left to right: Capt. Al Coker, USMC, and 1stLt. Brent Brewer, USMC

Capt. Al Coker, USMC
1stLt. Brent Brewer, USMC
VMFP-3

Two RF-4Bs launched on a section low-level mission following a low-altitude, aerial refueling period. Before joining on the tanker, the navigational and heading system failed in Rhino 42. The two Phantoms completed tanking without further difficulty and continued with their low-level target run.

While maneuvering during target egress, 1stLt. Brewer (pilot) and Capt. Coker (airborne reconnaissance officer) in Rhino 42 heard and felt a loud bang that seemed to indicate that something had hit the underside of their aircraft. 1stLt. Brewer immediately began to decelerate and climb, while Capt. Coker confirmed that his pilot had control of the aircraft and was monitoring his instruments.

Capt. Coker called "knock it off" to Rhino 41 (the other RF-4B) and asked for a visual inspection. As Rhino 41 maneuvered closer, Rhino 42's left fire-warning light flickered. 1stLt. Brewer reduced the throttle to idle and checked the fire detection system. The fire light remained on, so the pilot secured the engine in accordance with NATOPS. The light never extinguished.

As Rhino 41 checked his squadronmate, it was obvious that Rhino 42's centerline tank was missing. Fuel was streaming down the left side of the aircraft, but there were no signs of a fire. Since Rhino 42's navigation and heading system was not working, Rhino 41 led him back to MCAS Yuma, approximately 15 miles away. Rhino 42 resumed the lead 10 miles from the field. The crew got ready for a single-engine, short-

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field arrested landing and did a controllability check.

While decelerating through 230 knots, the Phantom began an uncontrolled yaw to the left and the flight controls became slow to respond. Capt. Coker asked 1stLt. Brewer if he felt comfortable with the way the aircraft handled, and the pilot said he didn't. While 1stLt. Brewer began a climbing turn away from the field, Capt. Coker told the tower that they were waving off for flight control problems.

Once over an unpopulated area, 1stLt. Brewer made another controllability check and found that the yaw was caused by an intermittent, uncommanded ignition of the right engine's after burner. He was able to compensate for the cycling afterburner and completed his check, which revealed that aircraft response was poor below 180 knots. He flew the approach at that speed and made a single-engine, half-flap, short-field arrested landing. Once in the gear, the crew secured the right engine and got out of the aircraft.

Postflight inspection revealed that in addition to the centerline tank, missing items included the LAU-17 pylon, the left-engine bay door, portions of the left engine and a portion of the right-engine bay door. Subsequent engineering investigations identified structural fatigue induced by violent turbulence and buffet. This strain caused the left-engine bay door to depart the aircraft, taking the centerline tank with it.

SqdLdr. Murray A. Gardner, RAAF
VFA-125

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SqdLdr. Gardner, a Royal Australian Air Force exchange pilot, was the lead for a section of Hornets on a 2 v 2 weapons sortie. The rear seat of his F/A-18B was secured for solo flight. During the section takeoff, SqdLdr. Gardner slightly reduced power from military to ensure formation integrity. After takeoff, his attempts to advance power back to military were thwarted by quadrant friction. Power was now at 89 percent, and he could not select afterburner.

He immediately turned downwind while climbing to 2,500 feet AGL, and began dumping fuel. Maximum available rpm continued to decay and ultimately stabilized at 78 percent, well below the required power for a normal approach.

SqdLdr. Gardner declared an emergency, lowered the landing gear and tailhook, secured fuel dump and began a steep, fast, no-flap approach. He lowered his flaps to half on short final to reduce approach and arrestment speed. He made an uneventful, short-field arrested landing.

Postflight inspection revealed FOD in the rear-seat throttle quadrant which restricted throttle movement.



Out of the Lion's Mouth

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By Dr. Charles W. Kerber

THIS evening, I am watching a particularly spectacular sunset. The wine is especially mellow, and I realize how lucky I am, how good life is. Twenty-five years ago, I reached over my head and pulled the handles on my Martin-Baker Mk. 5 ejection seat. If it hadn't been for that seat, I wouldn't be here enjoying the sunset.

I was a new flight surgeon in the back seat of a TV-2, 100 feet off the deck, just after takeoff. My pilot, Joe, needed a little instrument time, and we took off with a 1,200-foot ceiling and occasional drizzle. Everything seemed routine. As we passed through 120

knots, there was a horrible noise. Joe pulled back on the stick, and the plane leaped into the air. We struggled up to 200 feet, then wallowed around a bit as he tried to turn back to the field. He stalled.

As the aircraft's nose fell through the horizon, my hands were on the rings over my helmet. Without hesitating, I pulled them down, elbows tight against my side. The seat and I went through the canopy (Joe had forgotten to pull the canopy safety pin, too). What a jolt. I remember the seat tumbling the wrong way and the chute opening while I was still going up. I started my first swing. The seat was well away, and the fireball was coming up to meet me. My chute melted, and I fell 100 feet to the ground, landing in the fireball.

I was unconscious for only a few seconds, but fortunately, there was nothing broken, and I got up and ran out of the fire. I spent the next 20 months in Bethesda Naval Hospital. I was retired on a medical disability. Joe lies in Arlington National Cemetery.

I was not faster or smarter than him, yet I'm alive. I had the mindset. You need it, too, for the day *you* look into the lion's mouth. I survived because I never had any doubt that the day would come when I would eject. I didn't brood about it, though Joe, on the other hand, denied the possibility completely. I did everything over and over. Slow rolls, ADF approaches, recoveries from flameouts. I played the "What If?" game constantly.

There are two instances when you need this mindset. The first is when you have warnings. The red lights come on, or your wingman tells you. A squadronmate had such an experience.

Don took off from Cherry Point. His wingman told him he was on fire.

"I'd better get ready to eject," Don thought.

"Don, you're really burning," the wingman called, "Get out."

Don positioned himself, then thought that his plane was still flying.

"Don," the wingman called again, "You've got to get out, *now!*" By this time, Don's stick was useless. He blew the canopy and ejected seconds before his plane turned into an orange fireball. He nearly became charcoal because he was having a discussion with himself about what to do. This is not the proper mindset.

The second instance is when there is no warning, when you have no chance to consider your problem or to prepare to eject. You must train yourself to react instinctively to a life-threatening situation.

Notice that I have said little about technique. Technique *is* important. You must know where the face curtain handle is, and you should practice reaching for it. This holds true for the secondary handle, as well.

Denial has no place in an aviator's makeup. You need to always consider not *if*, but *when*. ▶



Dr. Kerber was a flight surgeon with VMA-533. Following his medical retirement, he began a career specializing in the function of the brain and the treatment of brain-related abnormalities. He continues to fly privately and has a commercial license and instrument rating.

The Worst Day

By Lt. Chris Liptak

"TWELVE thousand feet, 11,000 feet, 10,000 feet. . . Have you got it? Canopy's comin'." After calling out those fateful words and being shot out of our tumbling Tomcat, I didn't think much else could go wrong that day. I was wrong.

My seat cleared the inverted aircraft, and I was hurled straight toward the ground. I felt the seat fall away and breathed a sigh of relief. But, something was pulling on my right leg. The right leg restraint failed to release, and I looked down to see the large, black ejection seat dragging me down. As I reached for the leg restraint, the chute finally opened and the seat fell away. I hung there in a daze until the aircraft exploded about 1,000 feet below me and a huge ball of flame billowed toward me.

I searched frantically for the four-line release but couldn't find it. As the

flames got bigger, I grabbed the left riser and pulled hard, steering the chute away from the fire. What a nightmare! I looked up to see my pilot about 2,000 feet above me.

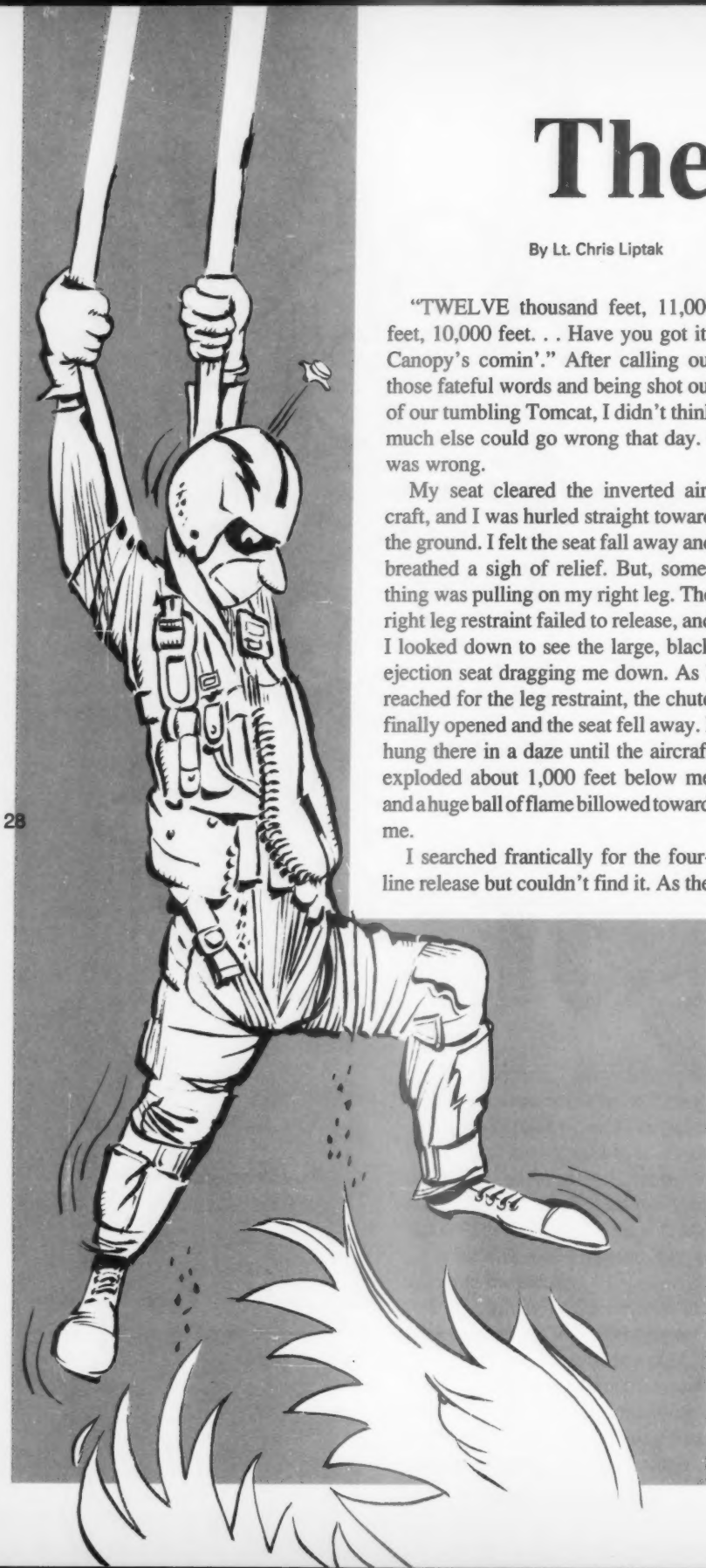
"Lucky dog," I said to myself. I ran through my descent procedures, raised my visor, took off my mask and even deployed my raft. We were over the Nevada desert, but I figured I might as well take advantage of the unique training opportunity.

As the ground rushed up, I assumed a good landing position as I realized I was coming down like a bag of rocks. Did I have a parachute? I looked up and saw how small Navy parachutes really are. I hit the ground hard and rolled through a cactus patch. I stood up, and a bolt of pain shot through my right leg.

"It's broken," I thought as I hobbled through the brambles. After a few minutes I looked down, expecting to see my leg bent in half. Instead, I saw my Navy-issue kneeboard, complete with light, strapped to the bottom of my foot. After I kicked the kneeboard through the bushes, my leg felt fine.

My pilot dropped about 100 yards from me, and I walked over to see if he was OK. I saw that he didn't have his helmet or any of his survival equipment in his vest.

"Where did you put all your stuff?" I asked. The windstream had torn his integrated harness to shreds, and he had nothing left. Fortunately, my SV-2 was complete and full of fun survival stuff. We looked up to see 10 aircraft circling overhead, and we tried to tell them we were OK. The radio didn't work too well on guard with the emergency beeper going off, and it took a while for us to get a word in on 282.8 with every-



Day of My Life

one trying to run the show above us. I thought I would solve the problem by lighting off a day smoke flare. More training! I pulled the large flare from my vest, opened the day end, pulled the ring, and . . . nothing. I stood there for two minutes waiting for the flare to ignite. When I had just about given up hope, the flare turned into an instant flame thrower and spouted a 2-foot flame. I dropped it on the ground and

ran. But the flare *followed* me because it was tied to my vest. By the time I freed it with my shroud cutter, it had gone out.

Now as we stood there trying to figure what to do next, we were nearly enveloped by a brush fire started by the aircraft wreckage. As we ran, we saw a truck coming toward us. We thought we were rescued. The truck turned out to be the farmer whose land we had just fried. For the first time that day, I truly feared for my life. We refused his kind

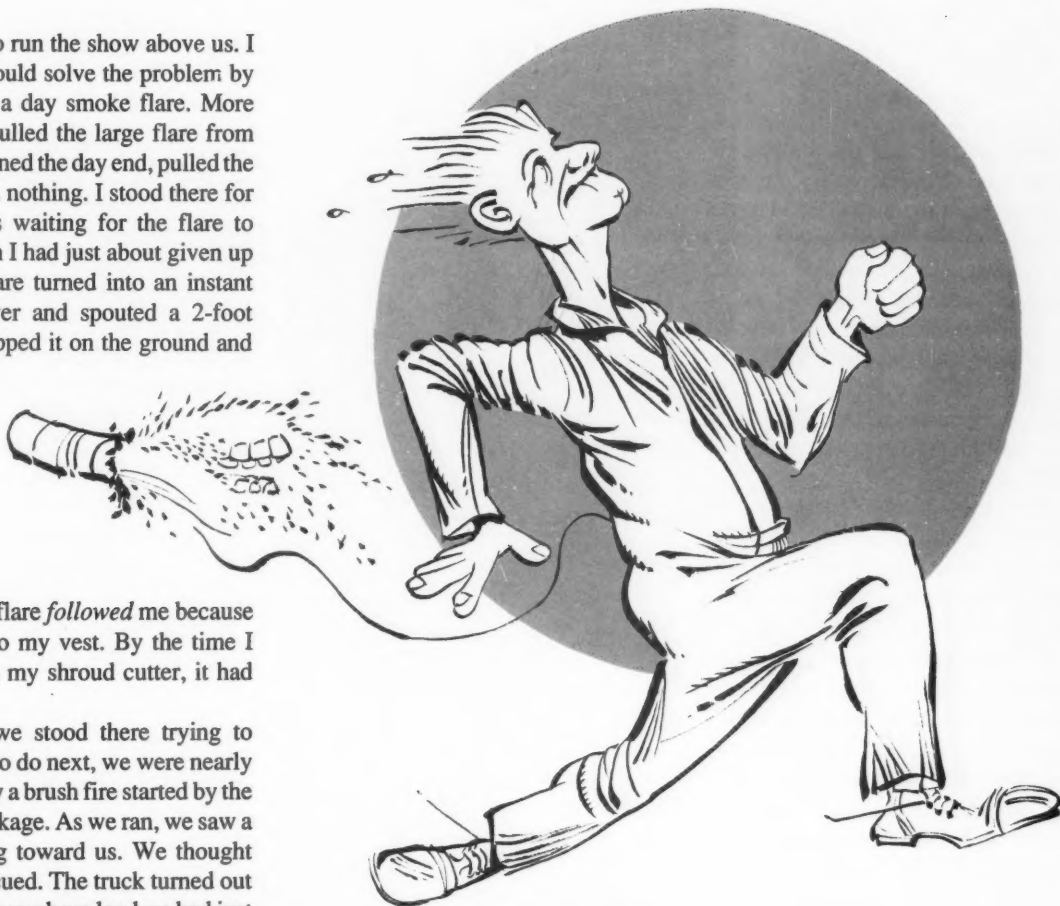
hospitality, however, as a helicopter appeared and whisked us back to Fallon.

We landed one hour later and were swamped by corpsmen. They strapped me down and stuffed me into an ambulance, slamming the door on my feet *twice*. They figured out, finally, that I wouldn't fit.

After a quick ride to the hospital — they ran the siren for me — they poked, prodded, x-rayed and examined me for two hours. After a long argument, I managed to get all my clothes back as well as a ride to the BOQ.

The main thing I learned from my little escapade was that just because you are clear of the aircraft, it doesn't mean that the emergency is over. You have to be alert and attentive all the time. Know your procedures and your equipment. Some of my problems may have been humorous then, but at night, in the frigid ocean, the situation could have been deadly. ◀

Lt. Liptak is a RIO with VF-2. He is the squadron Aviation Weapons Division Officer.



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One Last Loss of S.A.

By Cdr. Larry "Magic" Morris and Peter Mersky

THE weather was not the best for ACM. One of the adversary pilots on weather recon reported a haze layer at 14,000 feet. He recommended a hard deck at that altitude. Another squadron pilot had become disoriented on an earlier mission when he flew over the haze layer. One experienced FRS instructor cancelled a two-plane gun mission because of the disorienting affect of the blue sky, blue water and haze.

30 With this in mind, one F-14 crew pressed ahead with their AIC hop. The Tomcat crew briefed their mission, including departure and spin recoveries, disorientation and GLOC phenomena. The two-plane section took off and headed for the TACTS range. After flying three VID intercepts, the lead assumed the TAC lead for a hook VID. The two fighters headed southeast while the bogey steered toward them. The bogey called the first contact at 8.5 miles; the lead fighter saw the bogey at 8 miles. Maneuvering began as the bogey split the two fighters.

One of the fighters entered a right turn toward the oncoming bogey at 18,500 feet and 476 knots. As he continued the turn, the pilot lost 2,000 feet as the nose descended through the horizon, his airspeed increasing to over 500 knots. His nose was now 27 degrees below the horizon. Passing through 14,000 feet, the F-14 was fully inverted, at 528 knots, 39 degrees, nose low. Approximately nine seconds after entering the right turn, the fighter had



PH2 Hensley

accelerated to 631 knots, 70 degrees nose low. Apparently, the crew was completely disoriented. The aircraft reached 677 knots when it slowed its descent as though the pilot had regained control and was scooping out of his dive. At that point, the RIO initiated command ejection.

The pilot's body was recovered by a fishing boat whose crew tried to revive him. The RIO's body was not recovered. Both men had been in shape and ready to fly the mission. Although junior aviators, they had completed one cruise. The pilot had been a leading squadron candidate for Topgun.

What led this young fighter crew into a disorienting, and ultimately fatal, dive? What made the RIO eject

them both at near-supersonic speed, just when the pilot seemed to be getting ahold of the situation and saving the aircraft and crew? Were they talking to each other at all?

Only conjecture remains. The haze and (perhaps) anxiety were key contributing factors. Even on clear days or nights, swapping sky for the ground or calm water has led unwary aviators to their deaths. An experienced aviator will tell of plowing calmly along, serene in the knowledge that the stars in the night sky are where they should be, overhead. Only the RADALT's warning, set at 4,500 feet, abruptly made him realize that the "stars" were really ship lights, and that the aircraft was headed for the sea.

Loss of situational awareness is a primary factor in aviation mishaps. Not knowing which way is up has killed aviators of all experience levels and destroyed millions of dollars worth of flying hardware. It's hard to think clearly when you're tumbling nose over tail, and your world is spinning at ever-increasing speed.

Does your squadron have a RADALT SOP? What's the policy on inadvertent IMC situations? How effective is your Aircrew Coordination Training Program? Do crews review ejection items in detail at every brief?

Even the best of us have off days. All of us need to think about and discuss the possibility of vertigo, inadvertent IMC, and disorientation before they happen. ◀

Cdr. Morris's experience includes F-8s and F-14s. He is the Head of the Naval Safety Center's Aircraft Operations Division.

Peter Mersky is the Assistant Editor of *Approach*.

LETTERS

Re: NACES (November '88)

Glen Burnie, MD — The article "The NACES Advantage" (yes, I'm a little behind in my reading) generated a few thoughts because I was involved in drafting the test procedure for the D-revision as an industry representative.

MIL-STD-810C has been obsolete since July 19, 1983, when it was superseded by MIL-STD 810D. The revision added a shock test procedure for catapult launches and arrested landings. Prior to this revision, there were no dynamic tests for the unique carrier environment. This isn't surprising since the USAF is the custodian for the standard. On the other hand, the Navy did nothing to rectify the situation.

Cat launches and traps are potentially destructive for inadequately designed equipment. With a single-shock pulse, there is no time for the energy to build, so the equipment's response is limited, depending on the specific pulse shape. For example, the response to a traditional half-sine shock pulse is limited to an amplification factor of 1.76. The worst case is a square wave with an amplification factor of 2.

In contrast, the actual carrier shock environment is part shock and part vibration, consisting of a 2-3-second train of sinusoidal pulses. During this brief period, structural resonances are continuously fed between the ship and aircraft, allowing responses to build to higher levels than those experienced during a single-shock transient. The result can be earlier equipment fatigue than anticipated.

The bottom line is that NACES, as well as many other hardware procurement programs, risk becoming victims of administrative convenience. By applying familiar, but obsolete, military standards, uninformed or unmotivated contract writers ignore the real needs of the people who have to rely on the hardware.

Hank Caruso

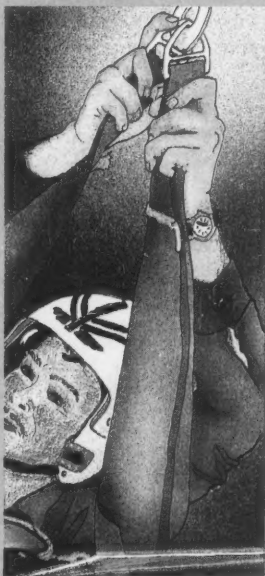
● Although well known for his caricatures of Naval Aviation "birds" and aircraft, Mr Caruso is also an engineer for the Westinghouse Corporation.

Re: Helo Cover (March '90)

Norfolk, Va. — While your cover was impressive, it shows a practice that has maimed survivors in the past.

One of the panels shows an aviator being hoisted in the rescue horse collar. Your artist shows him grasping the collar's attachment fittings. In 1983, I was a CH-46 aircraft commander at DWEST. A student took hold of the collar in the same manner, and my student aircrewman began hoisting him. The slack hoist cable had looped in the water around the horse collar attachment fittings. As the cable tightened under the "survivor's" weight, it trapped the ensign's fingers and severed them.

The proper method for riding the collar is to hug the collar by wrapping your arms around it and grasping the opposite shoulder or upper arm. Fortunately, our victim was a VP NFO, and he was able to



get a medical waiver to continue his naval career. That injury would have ended the career of most pilots and aircrewmembers. Since *Approach* defines aviation safety for our junior aviators and crewmembers, artistic errors like this could plant subliminal messages that could become physical hazards.

Cdr. J.J. Read, USNR (TAR)
VR-56

● Our artist used a number of reference photos for her cover, one of which showed an actual combat rescue of an F-8 pilot who had ejected from his plane in 1966. Obviously, he was lucky on several accounts that day. Thanks for pointing out this important point, and we hope that all aircrewmembers will readjust any "subliminal" suggestions they may have developed. — Ed.

Re: The Elevator Approach (June '90)

Norfolk, Va. — I enjoy and profit from every issue of *Approach*. However, I wonder if you should have published this article since its author, LCdr. Ed Abel,

Approach welcomes letters from its readers. All letters should be signed though names will be withheld on request. Address: *Approach* Editor, Naval Safety Center, NAS Norfolk, VA 23511-5796. Views expressed are those of the writers and do not imply endorsement by the Naval Safety Center.

was killed in a UH-1N mishap last fall while still assigned to USS *Peleliu* (LHA-5).

LCdr. David C. Pyle
HC-8 Admin Officer

● This letter is one of several contacts we have had about LCdr. Abel's death. Unfortunately, we did not learn about his mishap until after the June issue had been printed.

We try to offer timely information in every issue, not the least of which is the current assignments of the authors. The material in LCdr. Abel's article is worthwhile, whether or not he is still with us.

"It Ain't Over 'til It's Over"

Misawa AB, APO San Francisco — I was part of a 16-plane package on the last go of the last day of a Cope Thunder exercise. Everything was fine until our engagement with Marine Hornets and USAF Eagles. As I started my attack, I pulled my nose up to 45 degrees at 500 feet with 540 knots, and lit the burner. Climbing through 9,000 feet, I felt a muffled thud in the rear of my F-16C. Simultaneously, I heard knock-it-off calls and saw a fire warning light. My lead called to tell me I was on fire.

I pulled the engine throttle to idle, and the fire light went out in a few minutes. I looked behind me and could still see white smoke come from my tail end. I also looked directly below my wing and there was NAS Cubi. What a beautiful sight. I was at 350 KIAS and 10,000 feet. I flew a standard simulated flameout (SFO) approach with my engine at idle.

I lowered my gear and saw a HYD/OIL warning light. My A-system hydraulics were now at zero. The landing was fast and long, but I was able to stop using full braking. I cleared the runway then stopped, shut down and egressed. I checked my bird. It looked like it had been hit by a SAM.

The Cubi fire chief did a great job taking care of me and my jet. As luck would have it, this incident occurred right in the middle of the Navy's November safety shutdown. I had dozens of safety guys asking me questions and checking my aircraft. Cdr. Rowdy Yates, the station Safety Officer really helped during the emergency and the investigation that followed.

The investigators found that a simple cooling duct had come loose from the GE F110 engine, causing the engine to lose cooling air to the afterburner. When I selected AB, the temperature increase caused an augmentor burn-through, which burned off the top of the fuselage from the trailing edge of the rudder to the back of the nozzle. I had only a few minutes left of controlled flight before the fire would have severed my hydraulic lines.

The moral: Even though it's the last flight, the last mission, the last plane, it ain't over till it's over." Thanks to all the good people in the Cubi Fire Department and to Cdr. Yates for their outstanding support during my emergency.

Capt. Rob Ray, USAF
Training Officer
14 TFS



Choosing Life

By Lt. George Bodine

"AIRCRAFT crashed. No sign of ejection."

"On ground impact, ejection seat had partially traveled up seat rails. Ejection decision delayed until out of safe ejection parameters."

Why does it happen? Why would anyone ride a jet until impact? At first, I thought these are young aviators, unmarried, no kids. That theory disappeared in the training command when one of my instructors rode a wind-milling A-4 down and did not eject

until he brushed the tops of some tall trees. *He* was married, with children.

I've always considered myself to be extremely cautious. I've thought about ejection, considered the parameters that would push me out of my plane. I've probably touched that lower handle in my F/A-18 at least once on the carrier deck before every launch — sometimes more.

Yet, I nearly rode a jet into the dirt. I delayed the ejection to such an extent that I could feel the heat from the fire-ball. My legs were moving to run from the flames even as I hung in my chute. Not fun.

I had a slat departure in an A-4 at 10,000 feet AGL. I *knew* when it happened. I had just passed through the "soft" deck, 60 degrees, nose down, and NATOPS said to get out. I didn't.

I decided that I could save this aircraft. Now, I had committed myself. At 5,000 feet above the ground, with the jet still in a tight corkscrew, and with no response to opposite rudder, I still couldn't get the slat back in. I didn't eject.

Why? My squadron couldn't handle a Class A mishap. Sounds insane? Sure it does, right now. But remember, I thought I could fix it and save the plane. I had to.

This is not a fun article to write. I'm writing this story for one reason: I hope someone will read it and live. NATOPS says that if you are out of control below 10,000 feet, *eject!*

It doesn't matter how you got there. The pressure is going to be on you in that cockpit. Choose life. It's great to still be alive in the morning, sipping coffee with your squadronmates, going home to your family. There's no alternative. How many never pulled the handle, or pulled it too late? I had the chance to be trapped inside the decision-making process that ended some of those lives. They can't tell you how sorry they are. I can. ➤

Lt. Bodine is one of two Training Officers for VFA-127. Previously, he flew F/A-18s with VFA-113.

BROWNSHOES WIN ACTION COMIX

"The kind real aviators like"

Contributed by Lt. Ward Carroll

This Month in Film History

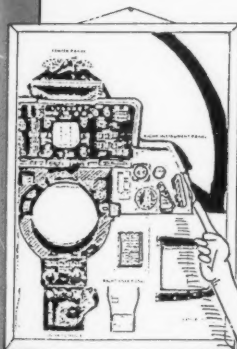
July, 1984 - The Presidential Committee on Film Themes is tasked with writing the original screenplay for the movie "TOP GUN." Because the committee members are on their way to the Cannes Film Festival, they delegate the project, via the Navy Office of Information, to several randomly picked commands. The actual writing falls to a group of officers who are TAD to various FUNCWINGS throughout the fleet.

The story begins with Maverick raffling off a motorcycle for Navy Relief, which he, coincidentally, wins. The squadron attains 110 percent of their monetary goal for the drive and, also coincidentally, Maverick is selected for TOP GUN.

Goose meets the same tragic end. (It is later revealed there were no 1320s involved with the script.)



"Ice Man" makes big points toward winning the TOP GUN Trophy by volunteering to give a lecture at the safety standdown...



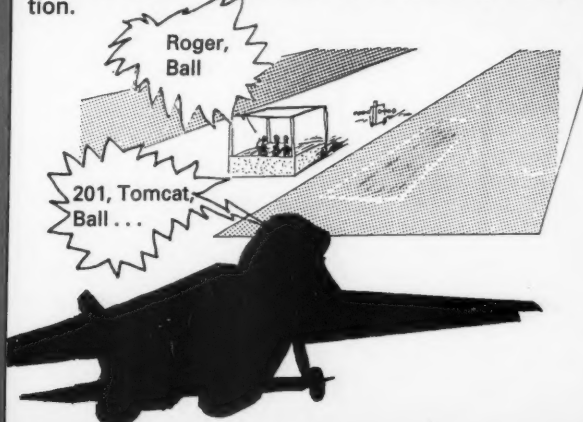
Step 7 is 'canopy... Jettison.'

(Capt. Jorgensen as 'Ice Man.' Courtesy Air Scoop Productions)

During the subsequent mishap investigation, the board discovers Maverick has a propensity for cursory briefs and a limited recall of boldface items...



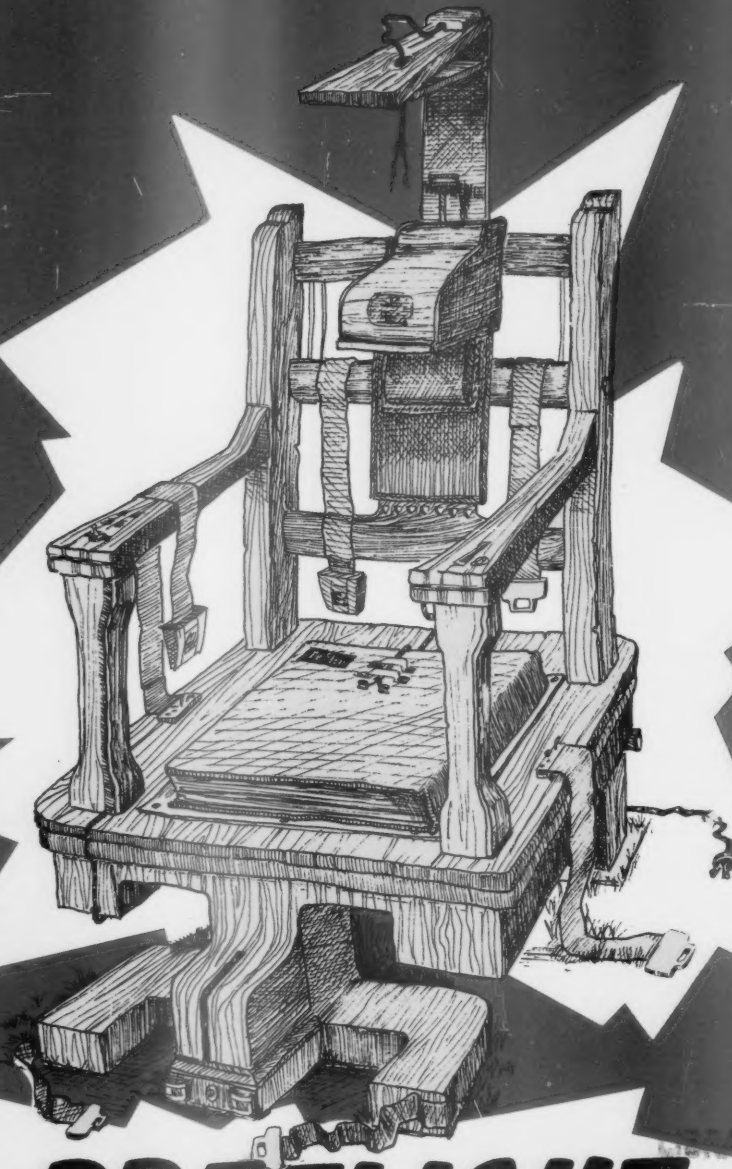
As the story comes to an exciting conclusion, a tie for the TOP GUN Trophy between "Ice Man" and "Wolf Man" is broken by a best-of-three FCLP hops competition.



The screenplay is forwarded to Hollywood via FPO San Francisco. Unfortunately, it never arrives. It is later learned that most of the manuscript was used to wallpaper Diego Garcia's O Club "Tiki Room."

DON'T BE SHOCKED

IF IT DOESN'T WORK!



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